

REMARKS

Claims 10 and 14-19 are pending in this application. Claims 1-9 and 11-13 were previously cancelled without prejudice to or disclaimer of the underlying subject matter. Claims 20-24 are added. Upon entry of the foregoing amendment, claims 10 and 14-24 will be pending. Support for the foregoing amendment can be found throughout the specification and claims as originally filed, for example on page, 52, lines 10-13, page 100, line 19 through page 123, line 3. No new matters enters by way of this amendment.

1. Withdrawn Rejections

Applicants acknowledge and thank the Examiner for indicating that the rejection under “35 USC 101 have been withdrawn”.

Applicants also acknowledge and thank the Examiner for indicating that the claims rejections under 35 USC 112, 1st paragraph (Enablement) have been withdrawn.”

Applicants further acknowledge and thank the Examiner for indicating that eh claim rejections under “35 USC 112, 2nd paragraph have been withdrawn.

Applicants additionally acknowledge and thank the Examiner for indicating that the claim rejection under 35 USC 102 has been withdrawn.

Applicants also acknowledge and thank the Examiner for indicating that claims 14-19 are allowable.

2. Claim Objections

Claim 19 has been objected to under 37 C.F.R. 1.75 as allegedly “being a substantial duplicate of claim 14.” Final Action at page 2. Applicants respectfully disagree. In addition, Applicants note that claim 14 has been amended herein to recite a “nucleic acid molecule comprising a nucleic acid sequence having from about 15 to about

250 nucleotide residues.” As such, Applicants respectfully request the objection to claim 19 be withdrawn.

3. Rejection Under 35 U.S.C. §112, First Paragraph: Written Description

The Examiner has rejected claim 10 under 35 U.S.C. § 112, first paragraph, for allegedly lacking an adequate written description. Office Action at pages 2-3. The Examiner argues that “the specification fails to provide written description for specific ‘structural features commonly possessed by members of the genus.’” Final Action at page 3. Applicants respectfully disagree with this rejection and reiterate their arguments below.

Although the Examiner has acknowledged that the specification “discloses SEQ ID NO: 1, which corresponds in some undefined way to cDNA/genomic DNA encoding plant species of protein/nucleic acid,” claim 10 allegedly fails to meet the written description requirement because the claim is allegedly “directed to encompass gene sequences and fragments of sequences of SEQ ID NO: 1, corresponding sequences from other species, mutated fragment sequences, allelic variants, splice variants, sequences which hybridize and so forth.” *Id.* Applicants respectfully disagree with this contention.

As stated previously, an adequate written description of a genus of nucleic acids, as recited in claim 10 may be achieved by either “a recitation of a representative number of [nucleic acid molecules], defined by nucleotide sequence, falling within the scope of the genus or of a recitation of structural features common to the members of the genus.” *Regents of the University of California v. Eli Lilly and Co.*, 119 F.3d 1559, 1568-69 (Fed. Cir. 1997). The feature relied upon to describe the claimed genus must be capable of distinguishing members of the claimed genus from non-members. *Id.*

The purpose of the written description requirement is to ensure that the inventors had possession of the claimed subject matter, *i.e.*, to ensure that the inventors actually

invented what is claimed. *Gentry Gallery Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479, 45 U.S.P.Q.2d 1498, 1503 (Fed. Cir. 1998); *Lockwood v. American Airlines*, 107 F.3d 1565, 1572, 41 U.S.P.Q.2d 1961, 1966 (Fed. Cir. 1997); *In re Alton*, 76 F.3d 1168, 1172, 37 U.S.P.Q.2d 1578, 1581 (Fed. Cir. 1996). In accordance with this purpose, Applicants need not “describe,” in the sense of Section 112, all things that are encompassed by the claims. To contend otherwise would contradict established jurisprudence, which teaches that a patent may be infringed by technology developed after a patent issues. *United States Steel Corp. v. Phillips Petroleum Co.*, 865 F.2d 1247, 1251, 9 U.S.P.Q.2d 1461, 1464 (Fed. Cir. 1989). A related, and equally well-established principle of patent law is that claims “may be broader than the specific embodiment disclosed in a specification.” *Ralston Purina Co. v. Far-mor-Co*, 772 F.2d 1570, 1575, 227 U.S.P.Q. 177, 179 (Fed. Cir. 1985), *quoting In re Rasmussen*, 650 F.2d 1212, 1215, 211 U.S.P.Q. 323, 326 (C.C.P.A. 1981). Thus, in order for Applicants to describe each and every molecule encompassed by the claims, it is not required that every aspect of those nucleic acid molecules (*e.g.*, an open reading frame) be disclosed. *In re Alton*, 76 F.3d 1168, 1175 (Fed. Cir. 1996) (if a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing even if every nuance of the claims is not explicitly described in the specification).

It is well-settled law that each nucleic acid molecule within a claimed genus does not need to be described by its complete structure. The Federal Circuit has elucidated a test for written description wherein a genus of nucleic acids may be described by a structural feature that distinguishes members of the claimed genus from non-members of the claimed genus. *Regents of the University of California v. Eli Lilly and Co.*, 119 F.3d 1559, 1568-69, 43 U.S.P.Q.2d 1398, 1406 (Fed. Cir. 1997). In contrast to the mere name “cDNA” provided in *Eli Lilly*, Applicants have provided a detailed chemical structure by

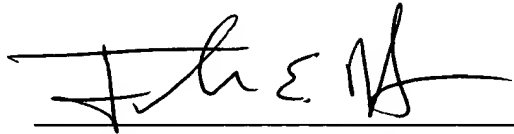
way of the claimed SEQ ID NO: 1. Applicants have therefore satisfied the *Eli Lilly* test for written description.

Applicants have provided a detailed chemical structure, *i.e.*, the nucleic acid sequence of SEQ ID NO: 1. Nucleic acid molecules falling within the scope of claim 10 are readily identifiable – they comprise a nucleic acid molecule having the nucleic acid sequence of SEQ ID NO: 1 or fragment thereof. The fact that the nucleic acid molecules may comprise additional sequences or variations is beside the point. Such modifications are readily envisioned by one of ordinary skill in the art and disclosed through the present specification. Thus, there is no deficiency in the written description support for the claimed invention. Therefore, claim 10 satisfies the written description requirement of 35 U.S.C. § 112, first paragraph. Reconsideration and withdrawal of this rejection are respectfully requested.

Conclusion

In view of the foregoing remarks, Applicants respectfully submit that the present application is now in condition for allowance, and notice of such is respectfully requested. The Examiner is encouraged to contact the undersigned should any additional information be necessary for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'T. E. Holsten', written over a horizontal line.

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